

## Delineator

Posted by jszpara - 2008/01/09 18:23

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Delineator Create Failure. I've added my 30m DEM, selected my workspace, named my geodatabase. Click on fill DEM, create FDG, FACG, named my Stream grid, When I click Create I get:

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"FormDelineator.btnCreateStreams_click()
  Error HRESULT E_FAIL has been returned from a call to a COM component."
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Using ArcGIS 9.2 sp4.

thanks  
Jim Szpara  
ID DEQ

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## Re:Delineator

Posted by meh@uwyo.edu - 2008/01/09 23:15

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I have been getting the same problem.

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## Re:Delineator

Posted by isburns - 2008/01/10 00:25

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I just successfully created a stream grid using a 30m DEM from Wyoming with 'Fill?' set to yes, 'Create?' (FDG) set to yes, and 'Create?' (FACG) set to yes on a machine with 9.2 with no service packs. I need to load 9.2 with the latest service pack on another machine and test again to see if it makes a difference. I'll post back once I've done so with the result.

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## Re:Delineator

Posted by jszpara - 2008/01/10 15:38

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I've seen this happen on a few other models except ArchHydro, but when I used a DEM & Landuse raster clipped to a subbasin boundary it errors out. When I used a DEM & MRLC clipped rectangular extending beyond the subbasin boundary it all worked great.

I've clipped all our TMDL related rasters to subbasin boundries to make them more manageable for users.

Is there a lookup table for the 2001 NLCD-MRLC?

Also, old Statsgo(MUID) couldn't get that to work any which way, new Statsgo(MUKEY) worked great--thanks.

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## Re:Delineator

Posted by isburns - 2008/01/16 18:03

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I try to keep a 1 km or so buffer between the watershed outline and the input DEM, land cover, and soils data to avoid associated problems. I do this by doing my delineation on an unclipped DEM and converting the resulting delineation to a grid, buffering it, and then clipping the other data. Like you say, clipping to just the watershed boundary can lead to weird behavior and errors.

We have not developed look-up tables for the 2001 NLCD. The MRLC has a "NLCD 1992/2001 Retrofit Change Product", but I have not looked at this closely enough to determine if it allows 2001 data to be retrofitted to 1992 data and subsequently used in AGWA.

That is interesting that the old STATSGO with the MUID didn't work for you. Where did you get the old data and where are you applying it?

Shea

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## Re:Delineator

Posted by jszpara - 2008/01/18 22:11

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Before I downloaded the new version with MUKEY, I was using a national version of STATSGO-USSOILS from the USGS, possibly because my watershed has MUID's & polygons from across several States ?

Anyway, moving on I'm stuck on trying to locate point precipitation gage data as described on page 99 of the manual. I've combed the Websites listed, lots of cool stuff, but nothing compatible with SWAT, any ideas where it hides ?

thanks

Jim

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## Re:Delineator

Posted by isburns - 2008/01/18 23:24

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I've learned of two sites since the posting of the manual that have data that is fairly easy to obtain and get into the format accepted by AGWA. The first site is free, I'm not so sure about the second.

The first, <http://www.daymet.org/>, is probably the easiest to use because it requires the least amount of

processing (convert to dbf, delete unneeded columns, and convert cm to mm) to get into an acceptable format for AGWA. On the other hand, this site is interpolating the data based on a lat/long coordinate that you provide.

The second, <http://hurricane.ncdc.noaa.gov/CDO/cdo>, is a little harder to navigate and I believe requires a little more manipulation to get into an acceptable format. The upside of this site is that you know exactly where the data you obtain is coming from.

With both sites, you'll still need to create a rain gage point theme based on the lat/long coordinate you provide or of the actual station selected.

Shea

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## Re:Delineator

Posted by jszpara - 2008/01/22 23:13

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Thanks for the tips on precip, I was able to easily run simulations on several watersheds in different parts of the state without any critical errors, however, I'm not getting any output ?

On a single watershed it processes "SWAT simulation complete", the DOS window flashes for a second, but there is no data created to display? -- thanks

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## Re:Delineator

Posted by isburns - 2008/02/04 19:27

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Hi Jim,

Your simulations are failing to run, the DOS window that flashes for you should actually remain for several seconds and you should see SWAT execute each year of the simulation one at a time. To troubleshoot what the problem might be, navigate, at the command prompt, to the simulations folder that was created and manually run SWAT by typing in SWAT2000. This should keep the window open after the simulation attempts to run. Take a screenshot of the window and post it in a follow-up message and we'll take it from there.

Shea

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## Re:Delineator

Posted by jszpara - 2008/02/04 19:55

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I've attached the CMD window. thanks.

[http://www.tucson.ars.ag.gov/agwa/images/fbfiles/files/swat\\_deq.zip](http://www.tucson.ars.ag.gov/agwa/images/fbfiles/files/swat_deq.zip)

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## Re:Delineator

Posted by isburns - 2008/02/04 20:07

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Actually, on second thought, what would be more helpful is if you could zip the entire directory and upload that instead. At first glance, the problem has to do with one or more of the .SOL files, which contain the soil profile information. This indicates there was a problem with the Land Cover and Soils Parameterization.

What kind of soil data did you use? If its STATSGO, does it have an MUID or an MUKEY? If it has an MUKEY or if its SSURGO data, did you import the tabular folder that came with the data into the Access Database?

Shea

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## Re:Delineator

Posted by jszpara - 2008/02/04 20:37

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For this simulation I was using old Statsgo with MUID, but I've tried both overlapping my watershed after importing the tables, using MRLC 1992 for landcover.

<http://www.tucson.ars.ag.gov/agwa/images/fbfiles/files/simx23.zip>

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## Re:Delineator

Posted by isburns - 2008/02/04 23:19

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Hi Jim,

The .SOL files are empty, did you receive any error messages during the parameterization step with this simulation? Earlier you said you were first having trouble with the old STATSGO but that the new STATSGO worked great. Try redoing the Land Cover and Soils Parameterization with the new STATSGO and then try writing and running a new simulation.

Shea

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## Re:Delineator

Posted by jszpara - 2008/02/05 18:07

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The Soils and Land Cover paramterization typically either runs through with no errors(either version of Statsgo) or messages, or I get a "ArcMap Needs to Close" error. After Rebooting it runs through fine but

with no output. I've attached the files & screenshot of SWAT. thanks.

<http://www.tucson.ars.ag.gov/agwa/images/fbfiles/files/sim1.zip>

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## Re:Delineator

Posted by isburns - 2008/02/05 20:35

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So this is a different simulation? The land cover and soils parameterization for this simulation went fine, but something weird is going on with the discretization; the discretization should have been fine in the other one. Can you take a screenshot of the discretization and post it?

Shea

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## Re:Delineator

Posted by jszpara - 2008/02/05 21:44

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This one also processes fine, but with no output. The Watershed is only 55 sq KM, is it too small for SWAT ?

thanks <http://www.tucson.ars.ag.gov/agwa/images/fbfiles/files/twin.zip>

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## Re:Delineator

Posted by isburns - 2008/02/06 17:52

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Let's focus on one simulation at a time so I don't get confused. The twin.zip screenshot you posted has a bad discretization. It looks like the whole area around the outlet is very flat, which is going to cause problems with any automatic delineation/discretization software. The three channels that run parallel near the outlet are the clue there. Additionally, all three channels seem to exit the watershed in different places, which is also a problem since a watershed only has one outlet. I think that is the bulk of the problem with this discretization, though I also noticed at the upper end of the watershed some potentially problematic channel confluences, but I can't really say from the screenshot. Basically, if three channels merge at the same point it can cause problems, and based on how some of the subwatersheds are broken out at the upper end of the watershed it looks like this may have happened with a channel or two that may only be one grid cell in length. If this is indeed the case, the way around it is to alter the CSA in the discretization until the problem goes away.

Shea

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## Re:Delineator

Posted by sela.shai - 2008/04/07 15:24

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hello,

I've been having a similar problem when trying to obtain a Stream Grid. I keep getting the message

"FormDelineator.btnCreateStreams\_click()

Error HRESULT E\_FAIL has been returned from a call to a COM component."

I tried running it using flowdir and flowacc grids created through the Arc toolbox, but i'm still getting this error message.

I tried to bypass this stage, defining an outlet location, but then got the message "Watershed delineation failure!"

I'm using an unclipped 5x5 meter DEM

ArcGis 9.2 SP4

Any suggestions? Thanks.

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## Re:Delineator

Posted by isburns - 2008/05/14 22:16

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Sela,

Did you ever get this problem resolved?

Shea

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## Re:Delineator

Posted by llin - 2008/08/01 19:47

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Hi Shea,

I got the exact problem as Sela, but mine DEM is 30 m .

Can you give me some instruction of how to fix this problem.

Thanks a lot,

Lin

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## Re:Delineator

Posted by isburns - 2008/08/25 23:35

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Hi Lin,  
Is there any way you can try this on a different computer?

Shea

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## Re:Delineator

Posted by isburns - 2008/09/21 23:51

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Hi Lin,  
We don't know what the exact problem that causes this is. Do you have another computer available that you could try it on? Were you able to complete the delineations and discretizations in the tutorials? Can you try delineating a smaller/larger watershed or use a different DEM? Finally, what version of ArcGIS are you using and with what service packs?

Shea

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## Re:Delineator

Posted by isburns - 2008/09/24 21:08

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Thanks to user karrez, I think we know what the problem is. You can see her solution in this thread.

Basically, you need to make sure the coordinate system of the data frame is set to the same projection as your DEM. The coordinate system of the data frame is set when the first data containing a defined coordinate system/projection is added to the map, so likely you have added a layer to the map with a different projection than the DEM. Once you change the coordinate system/projection of the data frame to match the coordinate system/projection of the DEM, you need to save and close the project for AGWA to detect the change.

Also, remember all data needs to be projected, having a geographic coordinate system defined is not enough. A projection allows AGWA to calculate lengths and areas, which would otherwise not be possible using decimal degrees or degrees, minutes, seconds.

Shea